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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,110	11/13/2001	Shozo Fukunaga	F-7223	6790

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EXAMINER

MARKS, CHRISTINA M

ART UNIT	PAPER NUMBER
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3713

8

DATE MAILED: 08/29/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/015,110

Applicant(s)

FUKUNAGA ET AL.

Examiner

C. Marks

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 6-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3-5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I in Paper No. 7 is acknowledged. The traversal is on the grounds that the Applicant believes that the search and examination can be made without serious burden. The Applicant does not appear to disagree with the Examiner that the inventions are distinct. The rule for a proper restriction as stated in the previous Office Action, paper No. 6 is a question as to whether it can be shown that (1) the combination as claimed does not require the particulars of the subcombinations as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP §806.05). The Applicant has not responded to discredit the Examiner's position that the inventions are distinct and has relied only upon the fact that the Applicant feels they would be easily searchable together, which has been respectfully considered but is not deemed a persuasive response to the restriction requirement.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-5 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected Invention I, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 6-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 and those dependent therefrom recites the limitation "the game machine housing" in line 3. There is insufficient antecedent basis for this limitation in the claim. There is no housing described for the game machine; therefore, one of ordinary skill in the art would not be able to ascertain how the monitor would be positioned as described.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

For examination purposes, the claim will be evaluated as best understood by one of ordinary skill in the art.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh (US Patent No. 5,616,078) in view of Ishikawa et al. (US Patent No. 6,549,641).

Oh discloses a match-style 3D video game (Abstract) that comprises a monitor at a prescribed height (FIG 1) that displays images, a 3D video game device controller that generates operation signals based on which game action is instructed (Column 4, lines 10-15). The device includes a pair of right and left main units configured to allow manual operation (FIG 1, see gloves with markers on player). There are motion detection units mounted in each main unit for individually detecting movement along at least two axes and outputting the detected movement as a signal (Column 5, lines 25-37). The content of the operation is reflected based upon the movement of these markers (Column 3, lines 14-17). The game control means controls the progress of the game based on operation signals from the controller (Column 7, lines 44-50). There is also a display control means that creates three-dimensional images from the viewpoint of a virtual camera and displays them on screen (Column 2, lines 50-67). There is also a head detection means that detects the position of the head of a player in the play space in front of the monitor in both the left and right directions (Column 4, lines 50-67). The game character on the screen acts in accordance with the player motion to allow the player to feel as they were really fighting with the opponent (Column 3, lines 14-16).

Oh does not disclose that the detection of the head is used to change the viewpoint of the virtual camera in accordance with the change of the detected head position. Ishikawa et al. disclose a game device wherein the head position of the user is detected, as disclosed also by Oh.

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Ishikawa et al. similarly also disclose a central processing unit used to detect the position of the player based upon the movement of the head and in relation to a display. Ishikawa et al. also disclose that by tracking the movement of the users head, image data for the screen can be generated based upon the result of the detection by the head tracking means and then displayed to the display. Ishikawa et al. disclose that providing a head tracking function that displays the computer screen images in response to the movement of the head, it is possible to display images that have increasingly realistic appeal (Column 1, lines 11-24).

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the teachings of Ishikawa et al. to the system of Oh. Oh stated that by allowing the motion of the user to be reflected in the image, the player can feel as if they were really fighting. One of ordinary skill in the art would therefore be further motivated to apply the teachings of Ishikawa et al. into the system of Oh in order to allow the motion of the users head to be reflected not only in the character on the screen, but also in the viewpoint established. Thus, by applying this function to the system of Oh, one of ordinary skill in the art would recognize that the system of Oh would be even more realistic to the user in that not only would the player's character move according to the player's moves, but also the viewpoint displayed on the screen would be that which is associated to the players head position, thus creating an even more realistic gaming experience.

Regarding claim 7, it would be obvious to one of ordinary skill in the art that the system of Oh could detect the height of the user's head as it is disclosed that the head is detected and the image is based upon a reference sheet. Being that the system can recognize the reference sheet

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and detect the position of the head, one of ordinary skill in the art would find it obvious that the height of the head could therefore be obtained.

Regarding claim 8 and 9, Oh discloses displaying an opponent character on the monitor screen (FIG 1). In match-style video games, it is well known to produce stage effects as those claimed in order to appropriately stage the display for making a hit or being hit. It is well known in the art to accentuate a hit by moving the viewpoint to the area of the hit or to shake the monitor to simulate the effects of a hit. It is merely an optional matter of design choice by one of ordinary skill in the art as to what kind of effects are desired and the application of such effects would have been obvious to one of ordinary skill in the art in regards to the system of Oh in view of Ishikawa et al.

Regarding claim 10, as both characters are displayed on the screen and the motion is simulated as per the actual action of the character, it would be obvious to one of ordinary skill in the art that the system of Oh recognizes the movement of the player's hands as punch signals (Column 1, lines 45-50) and that a hit effect would be performed such as the display would therefore show the punch landing on the opponent. This would be axiomatic to the system of Oh as Oh discloses that the game character is responsive to the motion of the player as to make the player feel as if he were really fighting (Column 3, lines 14-16). Thus, it would be obvious to one of ordinary skill in the art that from this disclosure, the machine axiomatically has a representation to be displayed when a player is hit.

Claims 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh (US Patent No. 5,616,078) in view of Ishikawa et al. (US Patent No. 6,549,641) further in view of Masanobu (JP 2000-033184)

What Oh and Ishikawa et al. disclose, teach, and/or suggest has been discussed above and is incorporated herein.

Oh discloses that both the player and the opponent are displayed on a screen and can interact in a fighting game. As disclosed above, it is obvious to the system of Oh that the punches land on the opponent character. Oh does not specifically disclose the way in which an opponent reacts to being hit by a player.

Masanobu disclose that an opponent character is displayed on the screen and the movement of a player is captured by a camera and sent to the main device. The device arithmetically operates a movement or damage of the virtual opponent corresponding to the movement of the player (Abstract). As an example, Masanobu discloses that when the player delivers a straight punch towards the opponent, the state of the punched opponent is arithmetically operated to display a state of bending backwards (Abstract). From the disclosure that the CPU can arithmetically operate a movement and that when a straight punch is delivered, the opponent bends over backwards, one of ordinary skill in the art would obvious infer that if a sideways punch from either the right hand or left hand occurred, the opponent would be arithmetically calculated to lean towards the other side as a reaction or as a result. Thus, either a damage action is shown on the monitor, or the CPU calculates a movement.

It would have been obvious to one of ordinary skill in the art at the time of invention to apply the teachings of Masanobu to the disclosure of Oh in view of Ishikawa. One of ordinary

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skill in the art would be motivated to use the CPU device of Oh to calculate reactions displayed by the opponent in order to create an even more realistic game as it would be understood by one of ordinary skill in the art that in a real boxing game an opponent would inherently react to the motions and movement of the player.

Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oh (US Patent No. 5,616,078) in view of Ishikawa et al. (US Patent No. 6,549,641) further in view of Sakakawa (JP 09-173645).

What Oh and Ishikawa et al. disclose, teach, and/or suggest has been discussed above and is incorporated herein.

The above combination of references does not teach of displaying a hitting mark on the opponent character.

Sakakawa disclose a boxing game that is operable in much the same manner as Oh. Sakakawa further includes the display of the opponent character to have a hitting mark associated with a hitting area. The hitting mark is displayed in a hitting area that is out of the defensive region of the hands (Drawing 1). Sakakawa discloses that the punch must be to an opening, thus obviating to one of ordinary skill in the art that if the hands were to be covering the area, the hitting mark would not be available. Sakakawa discloses a number of hitting regions, therefore it would be obvious to one of ordinary skill in the art that each region is associated with its own operation signal for the movement required to hit it based upon the fact that the opponent reacts based upon the region in which it is hit. Further, Sakakawa discloses that when a mark is

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displayed and the opponent is hit, life points (as opposed as a score to be more realistic) are awarded to the player (page 3, translation).

It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the teachings of Sakakawa into the system as disclosed by Oh in view of Ishikawa et al. In application to Oh et al., one of ordinary skill in the art would understand that the hit marks could be applied to the opponent character based upon the teaching of Sakakawa and that when the opponent character would have its hands in the way, thus preventing an opening (as suggested by Sakakawa), a hit mark would not be displayed. One of ordinary skill in the art would be motivated to make this incorporation in order to guide the player to become better at the game by providing them with information relating to hit areas, as well as implementing a scoring more reflective of an actual boxing game, thus encouraging the player and in turn making the game more enjoyable as the player would be more likely to be successful and feel as though the scoring was realistic to a real life battle.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US Patent No. 6,409,596: Gaming device wherein the player is in a 3D space and the image on the screen is controlled by the movement of the player in the 3D space.

Research on auto stereoscopic monitors and projection systems with lenticular creens: Discloses the use of head detection by screen systems with a multiplicity of applications.

Police 911: Game wherein the head of the user is used to detect the position of the user in the 3D space.

US Patent No. 6,419,580: Display is based upon the movement of the player character and can include areas beyond a prescribed area.

US Patent No. 6,456,728: Object detection apparatus that includes an image capture for capturing an image of the detected object.

US Patent No. 5,899,809: Input device that includes a different signal for each of the impact target areas.

US Patent No. 5,905,525: Display of a picture is controlled based upon the viewpoint of a head movement.


US Patent No. 5,724,264: Display controlled by the movement of the head in a 3D virtual space.


US Patent No. 6,522,312: Camera used to detect the position of a number of players in a 3D virtual space.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. Marks whose telephone number is (703)-305-7497. The examiner can normally be reached on Monday - Thursday (7:30AM - 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Teresa J Walberg can be reached on (703)-308-1327. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1148.


cmm
August 20, 2003


Teresa Walberg
Supervisory Patent Examiner
Group 3700